



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

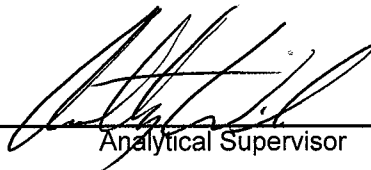
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002926
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002926001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/29/2009 12:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.78 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 18.44
Dissolved Oxygen: 9.38 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	270	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	190	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	26	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.26J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	2.2	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.35J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.11J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	6.3	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/29/2009 12:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.78 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 18.44
Dissolved Oxygen: 9.38 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	400	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	340	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	29	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.28J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	0.89J	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.43J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	31	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	0.044J	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.083J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	9.7	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations

pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FD
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	480	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	380	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	35	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.30J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	0.98J	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.47J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	35	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.5	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.069J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	5.9	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FD
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002926004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FB
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	U	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	U	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	U	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	U	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	U	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	U	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	U	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.034J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	9.4	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FB
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow:

CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/29/2009 10:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.45 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.36
Dissolved Oxygen: 8.59 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	470	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	470	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	31	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.36J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	2.2	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.58J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	38	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.056J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	2.2J	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/29/2009 10:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.45 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.36
Dissolved Oxygen: 8.59 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/29/2009 10:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.40 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.34
Dissolved Oxygen: 9.22 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	520	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	560	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	0.33J	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	2.0J	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	37	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.46J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	1.8	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.82J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	45	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.6	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.083J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	4.6J	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/29/2009 10:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.40 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.34
Dissolved Oxygen: 9.22 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009	

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002926007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/29/2009 10:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.31 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 19.61
Dissolved Oxygen: 8.61 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	590	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	480	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	1.5J	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	34	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.36J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	3.0	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.75J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	36	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.063J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	5.8	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/29/2009 10:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.31 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 19.61
Dissolved Oxygen: 8.61 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.07J	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/29/2009 11:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.34 pH Units
Chlorine, residual:
Conductivity: 141 uMHO
Temperature: 19.20
Dissolved Oxygen: 7.89 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	400	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	360	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	34	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.31J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.51J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	43	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.4	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.045J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	3.6J	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/29/2009 11:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations

pH: 7.34 pH Units
Chlorine, residual:
Conductivity: 141 uMHO
Temperature: 19.20
Dissolved Oxygen: 7.89 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA discharge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/29/2009 11:15
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.32 pH Units
Chlorine, residual:
Conductivity: 69 uMHO
Temperature: 21.43
Dissolved Oxygen: 8.84 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	520	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	600	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	3.4J	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	42	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.48J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	4.6	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.81J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	57	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.6	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	1.6J	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	0.12J	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	3.6J	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	7.7	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number: K00002926009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA discharge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/29/2009 11:15
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.32 pH Units
Chlorine, residual:
Conductivity: 69 uMHO
Temperature: 21.43
Dissolved Oxygen: 8.84 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number:	K00002926010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.44 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	257 uMHO
Project Site No.:	6	Temperature:	18.17
Station No.:	CLINC004.5RO	Dissolved Oxygen:	7.72 mg/L
Date/Time Collected:	09/29/2009 11:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/29/2009 13:21		
Received By:	E McCrary		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	09/30/2009				M Pattanayek	9/30/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	µg/L	2.9	10	A Wilson	10/5/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	170	µg/L	6.4	10	M Pattanayek	10/1/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	10/1/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	10/1/2009
Barium	36	µg/L	2.5	5	M Pattanayek	10/1/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	10/1/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	10/1/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	10/1/2009
Cobalt	0.20J	µg/L	0.04	1	M Pattanayek	10/1/2009
Copper	1.8	µg/L	0.38	1	M Pattanayek	10/1/2009
Lead	0.31J	µg/L	0.10	1	M Pattanayek	10/1/2009
Manganese	41	µg/L	0.42	1	M Pattanayek	10/1/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	10/1/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	10/1/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	10/1/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	10/1/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	10/1/2009
Zinc	3.9J	µg/L	1.9	5	M Pattanayek	10/1/2009

Lab-Sample Number:	K00002926010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.44 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	257 uMHO
Project Site No.:	6	Temperature:	18.17
Station No.:	CLINC004.5RO	Dissolved Oxygen:	7.72 mg/L
Date/Time Collected:	09/29/2009 11:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/29/2009 13:21		
Received By:	E McCrary		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	10/5/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

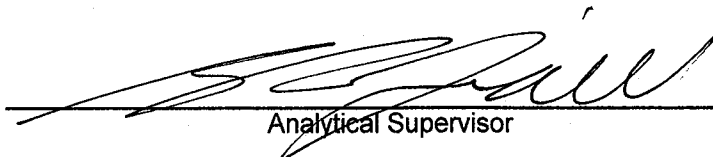
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002926
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002926001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 09/29/2009 12:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.78 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 18.44
Dissolved Oxygen: 9.38 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	14	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	16	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	16	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926003
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FD
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.59 pH Units
Chlorine, residual:
Conductivity: 54 uMHO
Temperature: 19.49
Dissolved Oxygen: 8.53 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	16	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2FB
Station No.: EMORY002.1RO
Date/Time Collected: 09/29/2009 09:40
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 09/29/2009 10:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.45 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.36
Dissolved Oxygen: 8.59 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	15	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	15	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	16	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 09/29/2009 10:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.40 pH Units
Chlorine, residual:
Conductivity: 55 uMHO
Temperature: 19.34
Dissolved Oxygen: 9.22 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	29	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 09/29/2009 10:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.31 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 19.61
Dissolved Oxygen: 8.61 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	21	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	20	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002926008
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 09/29/2009 11:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.34 pH Units
Chlorine, residual:
Conductivity: 141 uMHO
Temperature: 19.20
Dissolved Oxygen: 7.89 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	57	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	47	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	16	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002926009
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA discharge point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 09/29/2009 11:15
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date:
Date/Time Received: 09/29/2009 13:21
Received By: E McCrary

Field Determinations
pH: 7.32 pH Units
Chlorine, residual:
Conductivity: 69 uMHO
Temperature: 21.43
Dissolved Oxygen: 8.84 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	18	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	23	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	29	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002926010	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.44 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	257 uMHO
Project Site No.:	6	Temperature:	18.17
Station No.:	CLINC004.5RO	Dissolved Oxygen:	7.72 mg/L
Date/Time Collected:	09/29/2009 11:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:			
Date/Time Received:	09/29/2009 13:21		
Received By:	E McCrary		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	10/5/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	91	mg/L	0.7	1	P Leathers	10/5/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	S Burchfield	9/30/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	S Burchfield	9/30/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected